

### REMARKS

The above-identified patent application has been reviewed in light of the Examiner's Action dated December 31, 2003. Claims 7 and 8 have been amended, without intending to abandon or to dedicate to the public any patentable subject matter. Accordingly, Claims 7-12 are pending. As set out more fully below, reconsideration and withdrawal of the rejections of the claims are respectfully requested.

Claim 7 stands objected to due to an informality. Claim 7 has been amended to correct this informality. Accordingly, reconsideration and withdrawal of the objection to Claim 7 are respectfully requested.

Claims 7-12 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. In particular, the Office Action finds that the recitation of a gate that has a higher thermal conductivity than remaining portions of the insulating substrate is not supported by the specification. For the reasons set forth below, reconsideration and withdrawal of the rejections under 35 U.S.C. §112 are respectfully requested.

The specification states that the gate electrode has a high thermal conductivity. (*See, e.g.,* Specification at p. 16, ll. 1-2.) Furthermore, the specification explains that the grain size varies in different regions because the gate electrode is comprised of a material having a high thermal conductivity. (Specification at p. 15, l. 22 – p. 16, l. 7.) Therefore, it is submitted that the claims are properly described in the specification, and reconsideration and withdrawal of the rejections under Section 112, first paragraph, are respectfully requested.

Claims 7 through 12 stand rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 5,548,132 to Batra et al. ("Batra") in view of U.S. Patent No. 5,793,460 to Yang ("Yang"). In order to establish a prima facie case of obviousness under Section 103, there must be some suggestion or motivation to modify the reference or to combine the reference teachings, there must be a reasonable expectation of success, and the prior art reference or references must teach or suggest all of the claim limitations. (MPEP §2143.) As set forth below, reconsideration and withdrawal of the rejections of the claims as obvious are respectfully requested.

The Batra and Yang references are cited for disclosing a thin film transistor in which the grain size of the drain and source are greater than a grain size of the channel, and in which the

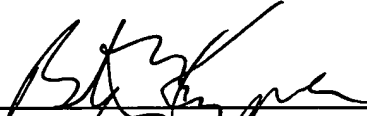
gate electrode is formed from a refractory metal. In the amendments set forth herein, Claims 7 and 8 have been amended to include the limitation that a center portion of a gate electrode corresponds to a channel of a silicon film and a pair of tapered end portions respectively correspond to the drain and the source of the silicon film, which allows the channel to have a smaller grain size than that of the drain and source. Neither the Batra nor the Yang reference discloses a gate electrode with a center portion and a pair of tapered end portions as claimed. Therefore, for at least these reasons, the pending claims are not obvious in view of the cited references. Accordingly, reconsideration and withdrawal of the rejections of the claims are respectfully requested.

The application now appearing to be in form for allowance, early notification of same is respectfully requested. The Examiner is invited to contact the undersigned by telephone if doing so would expedite the resolution of this case.

Respectfully submitted,

SHERIDAN ROSS P.C.

By: \_\_\_\_\_

  
Bradley M. Knepper  
Registration No. 44,189  
1560 Broadway, Suite 1200  
Denver, CO 80202-5141  
(303) 863-9700

Date: \_\_\_\_\_

June 30, 2004